Accelerate Happiness & Health

From Innovation to Startup @medical technologies

Hsu-Wei Fang, Ph.D.

EBN Congress 2011
Toulon, France

SME in Taiwan
by Dr. Hsu-Wei Fang

Founder,

Dr. Hsu-Wei Fang

BIOTEGY

Ph.D., Univ. of Maryland, USA

M.S., Univ. of Maryland, USA

B.S., NTU, Taiwan

Distinguished Professor, National Taipei University of Technology

Researcher, National Health Research Institutes, Taiwan.

Vice President, Taiwan Business Incubation Association (2012-14)

Former NIST research scientist, USA (1996 - 2003)

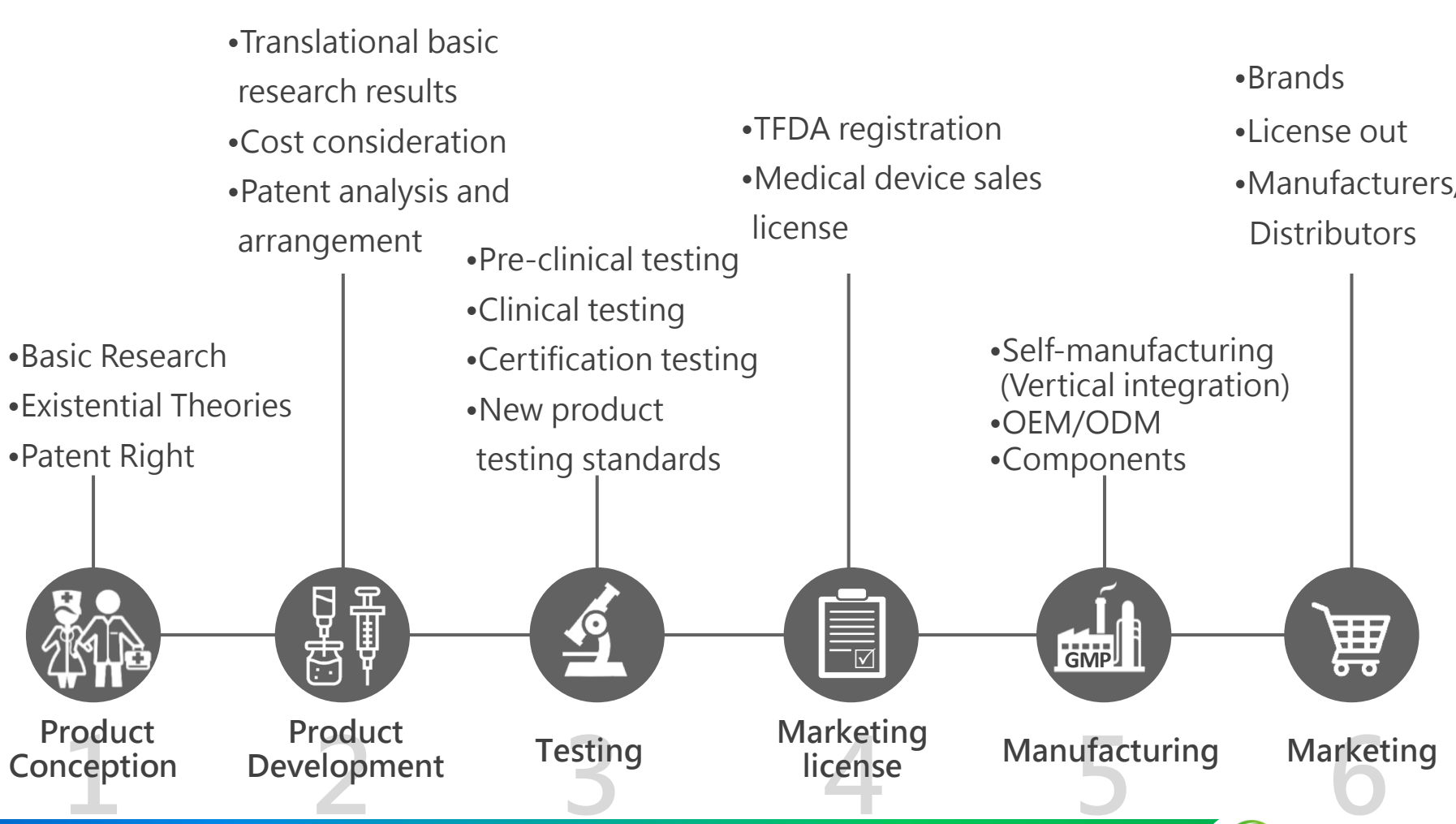
Medical Device Market

Pain Points

V.S.

Biotegy

Solutions / Innovations



Medical device industrial value chain

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Medical Device Industry Gap

International / Well-capitalized Operating model

One-stop manufacturing

Large input cost, Long time
Low successful chances

Vs.

Small and medium enterprise (SME) opportunities

New business model

Upstream/downstream teamwork
Reasonable risk spreading

Development History

Focus：Innovative Class II, Brand-new Class III, Breakthrough whole new medical devices
Arrangement：Global market

2009 Jan. MT3 center establishment in Taipei Tech

2009 - 2014 MT^3 completed multiple technology-transfer projects, and established pilot GMP factory

2014 Oct. Biotegy has passed the review for marching into Hsinchu Biomedical Science Park Incubation Center

2015 April Biotegy Corp. has officially established (April 2nd)

May-Aug. Introducing technologies: CartiJET, ProCellar, Bone graft materials, Bone cement

June Applying international patent for CartiJET

Sept. Starting a technology cooperation project of Pocket Protector with an US medical doctor

Nov. Applying US, TW, and PCT patents for Pocket Protector Accessories Design, and US patent has obtained

Dec. Signing contact with a TW medical group and starting product design for aesthetic medicine implants

2016 June Applying US FDA IDE for Pocket Protector, and meeting with FDA reviewers

July Completion of automatic machine development for barbed suture, and entering GMP production

Sept. Starting a cooperation project with a dentist group for developing procedures of dental implant cleaning

2017 Jan. Starting a technology transfer and commercialization product of growth factor-containing bone graft materials with a pharmaceutical company

Development History

2017

Feb. Obtaining US invention patent for Pocket Protector

March Signing an authorization contract for developing "Second generation automatic machine for biological absorbable lift suture "

April Successfully assisting establishments of two new companies

May Obtaining TW trademark license for "biological absorbable lift suture"

July Biotegy joined an exhibition with other medical companies in Vietnam, and promoted exchanges with medical device manufacturers in Southeast countries

Sept. Obtaining TW trademark license for CartiJET, and signing an authorization contract for developing "ultrasound therapy instrument"

Oct. Signing a technology transfer with Taipei Tech: Contact lens care solution

Nov. Biotegy joined a Taiwan Expo with other medical companies in Malaysia. Promoting cooperation opportunities between TW and Malaysia, and successfully building reputation for Taiwan medicine industry

Dec. Biotegy increased Capital to 10 million Taiwanese New Dollars

2018

Jan. Applying class II medical device registration of "injectable bone graft materials" from TFDA

Feb. Obtaining Class I medical device license of 「insertion tube」, and pharmacist selling license

Management Team

President
Tiffany Huang

- Keio University, JP. Master of Law
- Takeda Pharmaceutical company Legal Manager
- Deloitte Taiwan, Japan Business Group Specialist

Founder / Technical Chief Consultant
Hsu-Wei Fang Prof.

- Maryland University, USA. Ph.D. in Chemical Engineering
- **Taipei Tech University. Distinguished Professor**
- National Health Research Institutes Joint Investigator
- Bio Taiwan Committee member
- Ta-You Wu Memorial Award - The highest honor of young scholars in Taiwan

Medical Device Sale
Lily Chao Director

- GeneMedical President
- Medical device market analysis consultant
- **Industry Technology Research Institute IEK Deputy Director**
- Ministry of Economic Affairs Program Office Director

R&D Manager
Michelle Li Ph. D.

- Taipei Tech University. Ph.D. in biomedical and biochemistry
- National Health Research Institutes Researcher
- 10-year experience in medical device development。

Sales Department Manager
Po-Liang Lin Ph. D.

- Taipei Tech University. Ph.D. in biomedical and biochemistry
- Taiwan Textile Research Institute Researcher

International Marketing Manager
Johnny Fang

- Oklahoma City University, USA. Master in Business Management
- DuPont Taiwan, Asia-Pacific special chemicals Associate.
- 20+ year experience in sale and market management.

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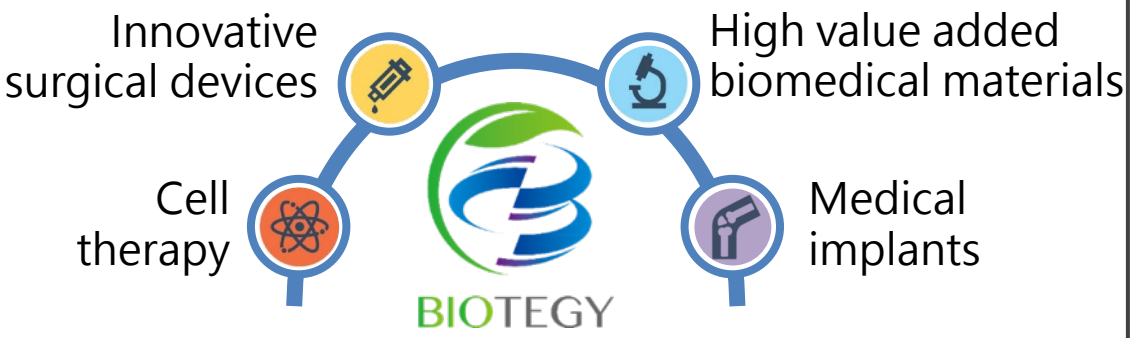
Biotegy works with you

The core technology of Biotegy Corp.



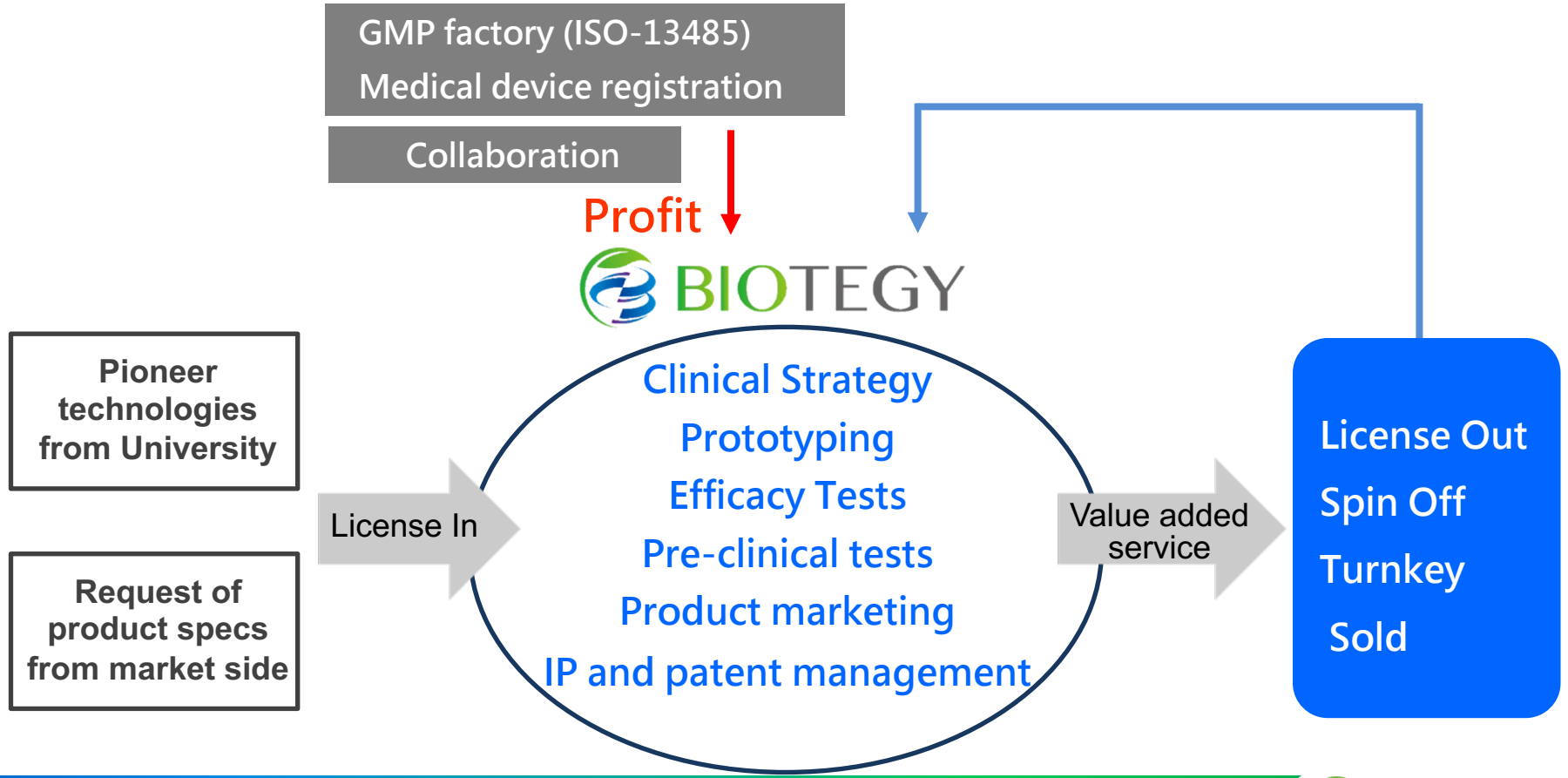
Begin with the end in mind

Medical Device Design House

that works with SME

Biotegy Corp. is an innovative platform that focuses on the medical products from **design and development to sample production**. Biotegy has the research resources and collaboration partners with **industry, government, and academia**. Biotegy can develop medical devices with **marketing potentials** by combining the thoughts and clinical needs of medical doctors, and can undertake patent technologies and research results from any countries. Biotegy can then create the highest values of products according to their characteristics and marketing values from R&D, manufacturing, and sale by applying varied operation models and strategies.

Business model：Co-development +Technology transfer



BIOTEGY, a Biomedical Strategist :

effectively meets unmet clinical &market needs

Main development principles

- biomedical materials,
- cell therapy,
- minimally invasive & noninvasive surgery

Established in

2015

Certificate

3

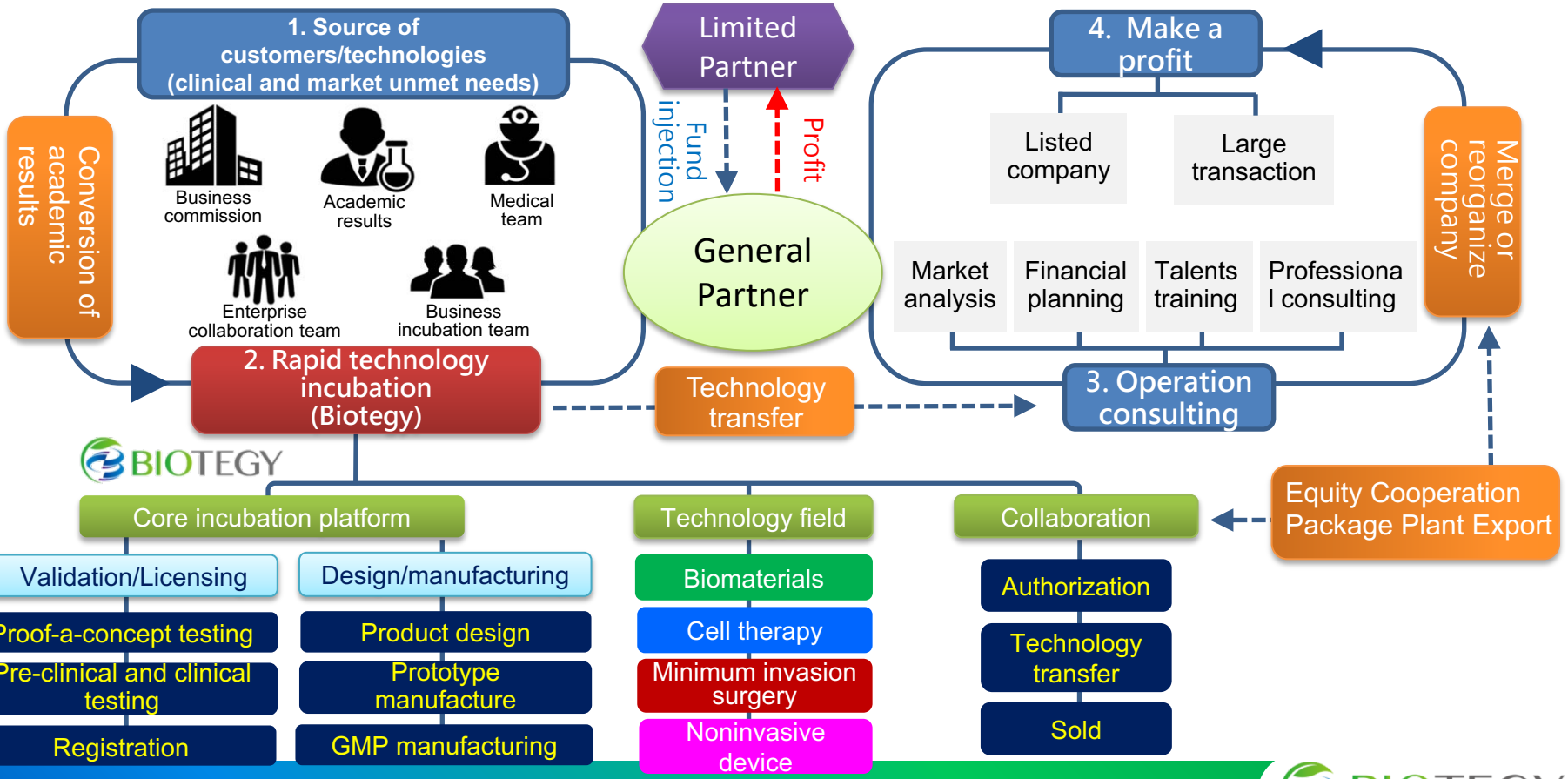
Trademarks

11

Patent

9

Mutualism between Biotegy and Venture capital fund achieves win-win result



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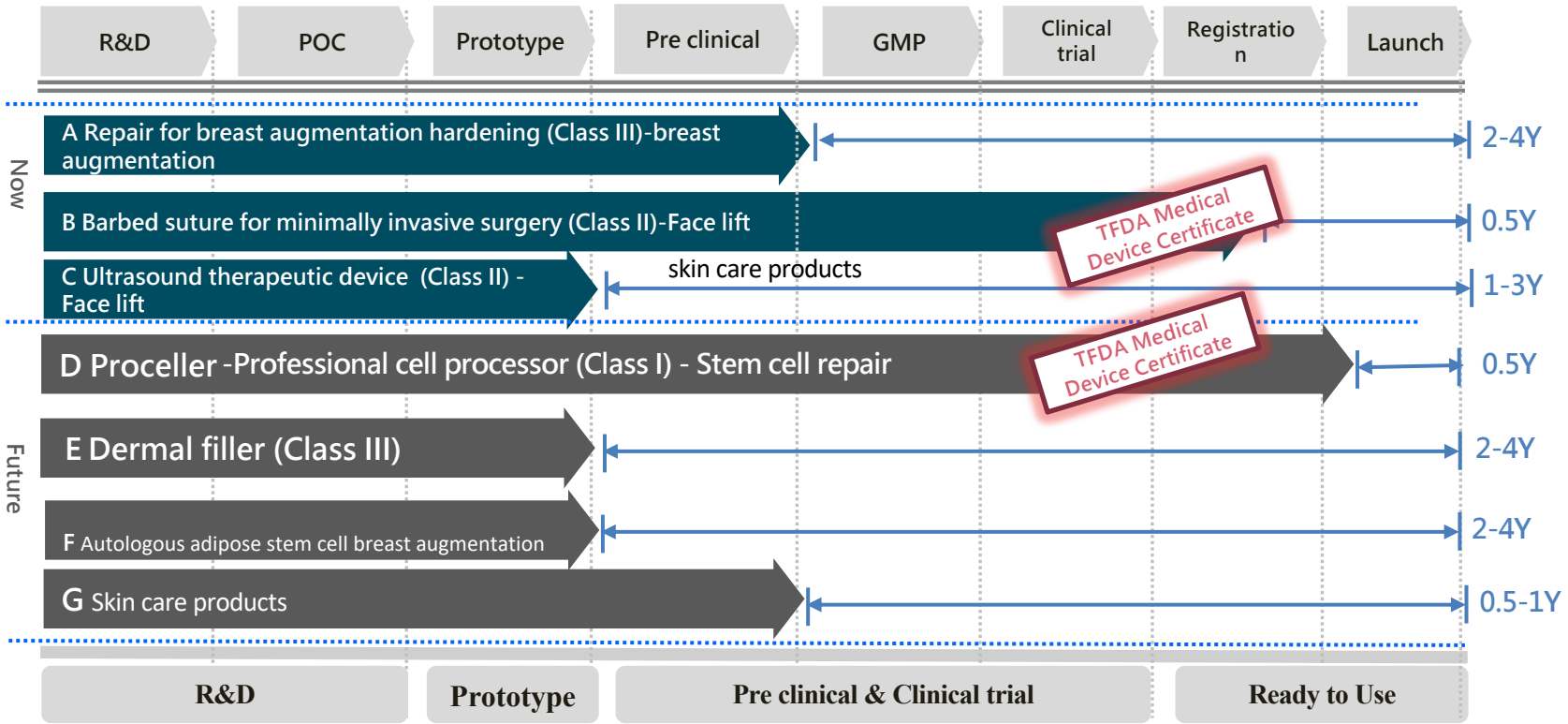
Multidisciplinary medical device development



A. Repair for breast augmentation hardening

PENDING

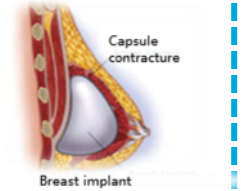
-Pocket Protector-

World's first

Class III innovative medical device - the permanent implant for preventing and treating **capsule contracture** caused by breast augmentation

Break through the treatment dilemma

Overcome the effect of massage or short-term treatment of drugs, patients with repeated replacement of breast surgery more than 3 times

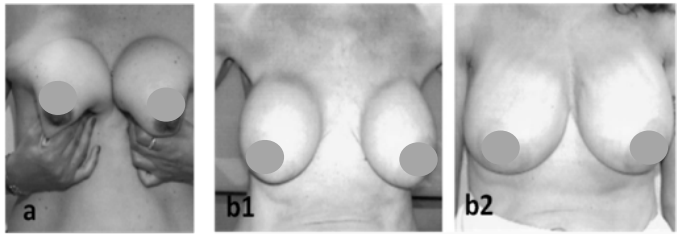


Better than the current treatments

a one-stage surgery that can prevent and treat capsule contracture in **a long term**

Dr. Mark Berman
American Academy of Cosmetic Surgery
President – Jan. 30, 2010 – 2011
Beverly Hills Plastic Surgeon
Co-Founder of Cell Surgical Network and California Stem Cell Treatment Center

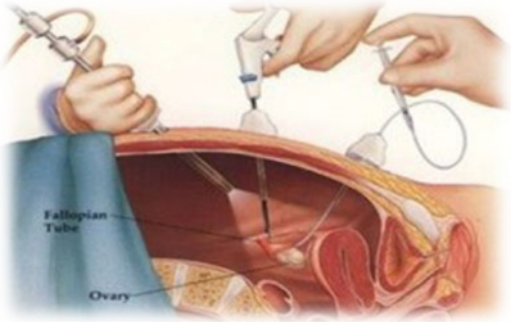
38 patients with breast augmentation have never had capsule contracture, after implanting breast implant for 8 years.



B. Barbed suture for minimally invasive surgery

Minimally invasive knotless barbed suture

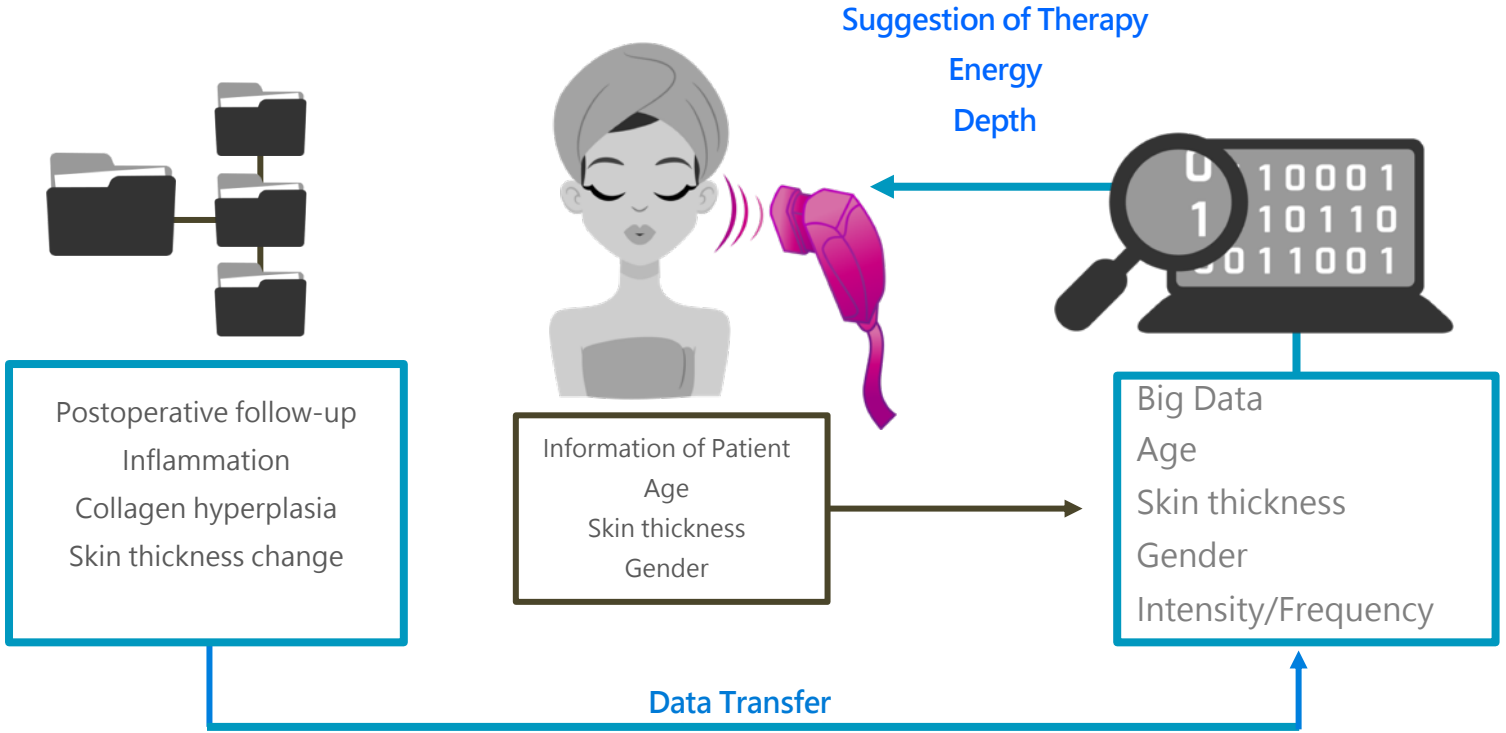
- Bidirectional barbs for anchoring tissue
- Closing the wound automatically
- Knotless
- Tensile strength is evenly distributed on the wound
- Better healing effect



Lift for micro-plastic surgery

- Absorbable suture by FDA approval
- Completely absorbable in vivo for 180-240 days
- Stimulating collagen proliferation for 2 years
- Skin lifting effect

C. Ultrasound therapeutic device



Investment highlights

Global vision

World's first innovative technology – Pocket Protector for treating and preventing capsule contracture.

Multiple production lines result in **large potential market** and potential development.

Arranging sale distribution for **minimally invasive barbed sutures** to take the lead in Taiwan market.

Applying **multiple patents, FDA registration** and **TFDA registration** for every product.

Bone cement manufacturing technology is **first in Taiwan and China**, and having competitive advantage by controlling the unique manufacturing process.

R&D team include **interdisciplinary talents** with **innovation and organization abilities**, and help to accelerate commercialization duration.

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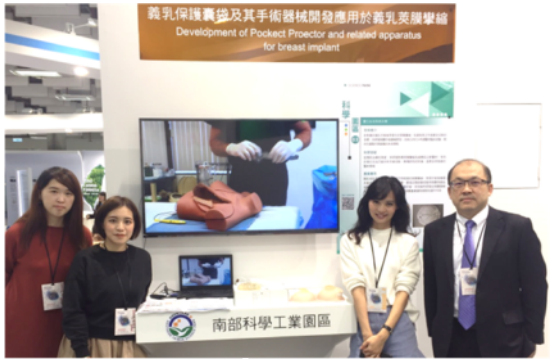
Exhibition activities

2016 TRANS

2017 TRANS

2017 Future Tech



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Exhibition activities

2017 Meet Taipei

2017 Taiwan Expo in Vietnam

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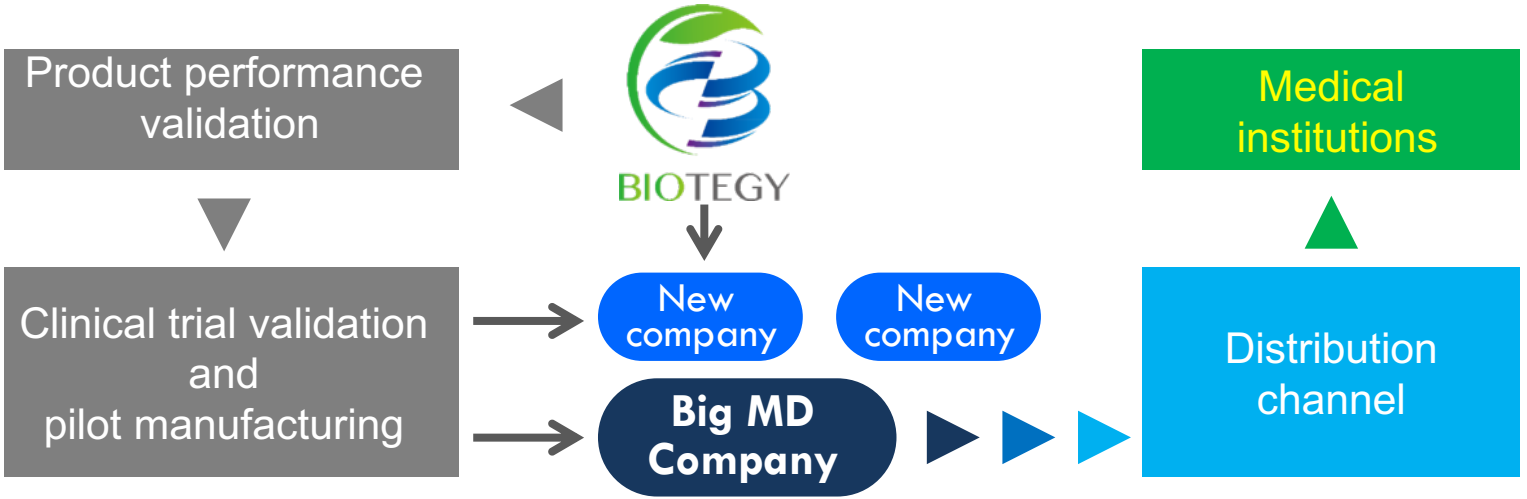
Global strategy of Biotegy

Biotegy has broken even after being established for 3 years, and has successfully validated the new business model.

Biotegy has **completed multiple know-how technologies** and **IP rights**, and has obtained the first medical device license in 2018.

Short-time : **Profit** → Mid-term : **Investment opportunity for start-up companies** → Long-term : **Rapid growth after obtaining product licenses**



幸福健康產業加速中心

Accelerator for Happiness & Health Industry

策略投資整合。加速種子孵化

ACCELERATE THE HEALTH INDUSTRY

Happiness
& Health

臺灣擁有許多優秀的醫療資源與發展潛力，但該如何在國際間嶄露頭角？

Taiwan has lots of excellent medical resources and huge potential in healthcare field. How can we stand out from the global society?

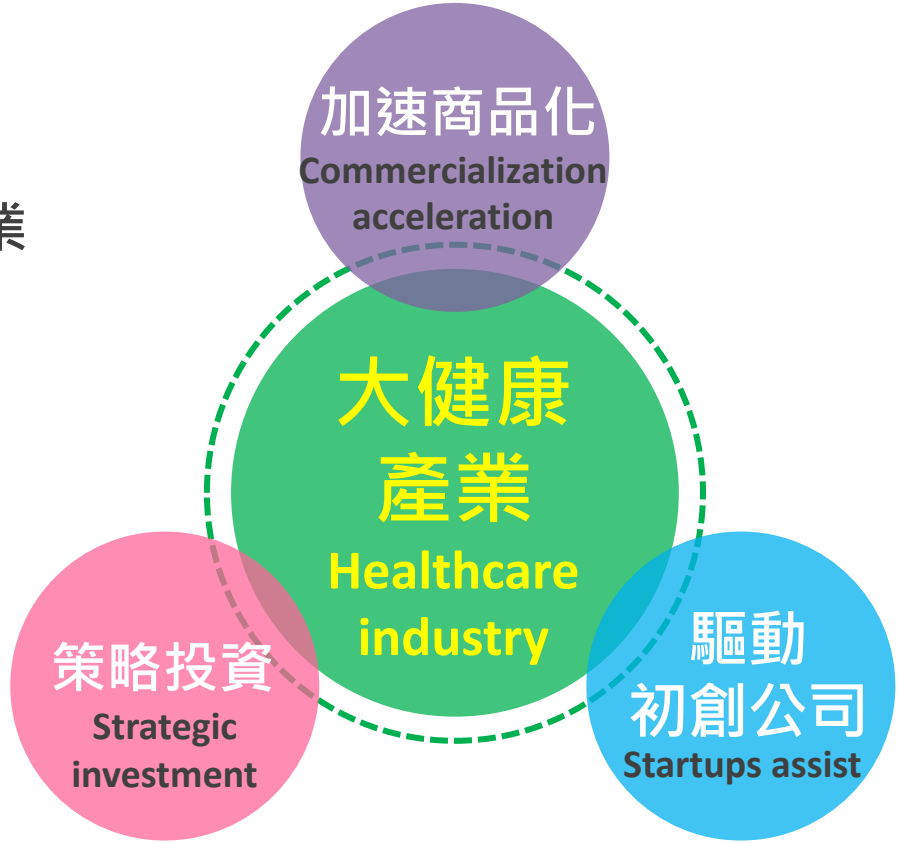
幸福健康產業加速中心目標為加速國內產業商品化，提升其競爭力並成功上市櫃。透過豐富人脈網絡及金控人壽，輔助更多擁有前瞻性「創新力」與「執行力」的人才，帶領臺灣社會邁向「**整合戰略**」的幸福健康未來！

AhHi aims at accelerating domestic industry branding and upgrading competitiveness in order to successfully make the companies listed. Through networking and financial holding company, AhHi can assist more people with creative ideas and executing ability to lead Taiwan toward an **integrating strategy** for happiness and health future!

歡迎加入AhHi

中心宗旨與目標 Aim and goal

- **促進大健康產業發展**
  Facilitate healthcare industry development
- **結合學術機構、金融科技、醫療產業**
  Integrate academic institutions, Financial technology industry and medical industry
- **聚焦產業前瞻創新技術**
  Focus industrial leading and innovative technology
- **策略投資，驅動初創公司成長**
  Strategically invest and assist Startups to grow
- **評估臨床應用與市場佈局後投資**
  Evaluate clinical application and marketing arrangement before investing



中心核心成員&顧問 Center core member/consultant

法律金融專家 Law/Finance Expert

陳春山Ph. D
Chun-San Chen Ph. D

- 加拿大渥太華大學法學博士
- 台北科技大學 智財所教授
- 全球品牌管理協會理事長
- 證券上市上櫃審議委員
- 前公共電視與華視董事長

- University of Ottawa, Canada, JD
- Taipei Tech University IP institution Professor
- Global Brands Management Association Chairman
- Advisory committee member of publicly traded securities
- Former PTS and CTS Chairman

醫材開發專家 Biomaterial Expert

方旭偉 Ph. D
Hsu-Wei Fang Ph. D

- 美國馬里蘭大學化工博士
- 台北科技大學 特聘教授
- 國家衛生研究院合聘研究員
- 行政院生技產業諮議 (BTC)委員
- 台灣年輕學者最高榮譽-吳大猷獎

- University of Maryland, US. Ph.D. in Chemical Engineering
- Taipei Tech University. Distinguished Professor
- National Health Research Institutes Joint Investigator
- Bio Taiwan Committee member
- Ta-You Wu Memorial Award - The highest

學術單位 Academic institutions

金控人壽 Financial holdings/ Insurance company

醫學中心 Medical Center

專業驗證 Certification company

中心服務 Services

三大標的產業 Three main target industries

著重聚焦於擁有龐大市場潛力的新興產業，包括醫材、智能大健康、生活設計等與**創造未來幸福健康生活**緊密相關的產業、技術與服務。

We would like to focus on emerging industry, which has huge market potential, such as medical device field, smart health and life design. Create a future life with happiness and health related to industry, technology and service.

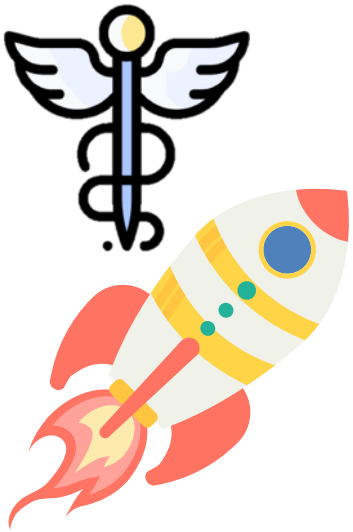
醫療器材
Medical device

智能大健康
Smart health

生活設計
Life design

（產品、機構、環境）
(product, mechanism, environment)

加速器策略贊助夥伴 AhHi strategic partners



新創公司
Startups
or
學術前瞻技術
Academic leading technology

投資
Invest

幸福健康產業加速中心
Accelerator for Happiness & Health Industry

資金 Fund

資金 Fund

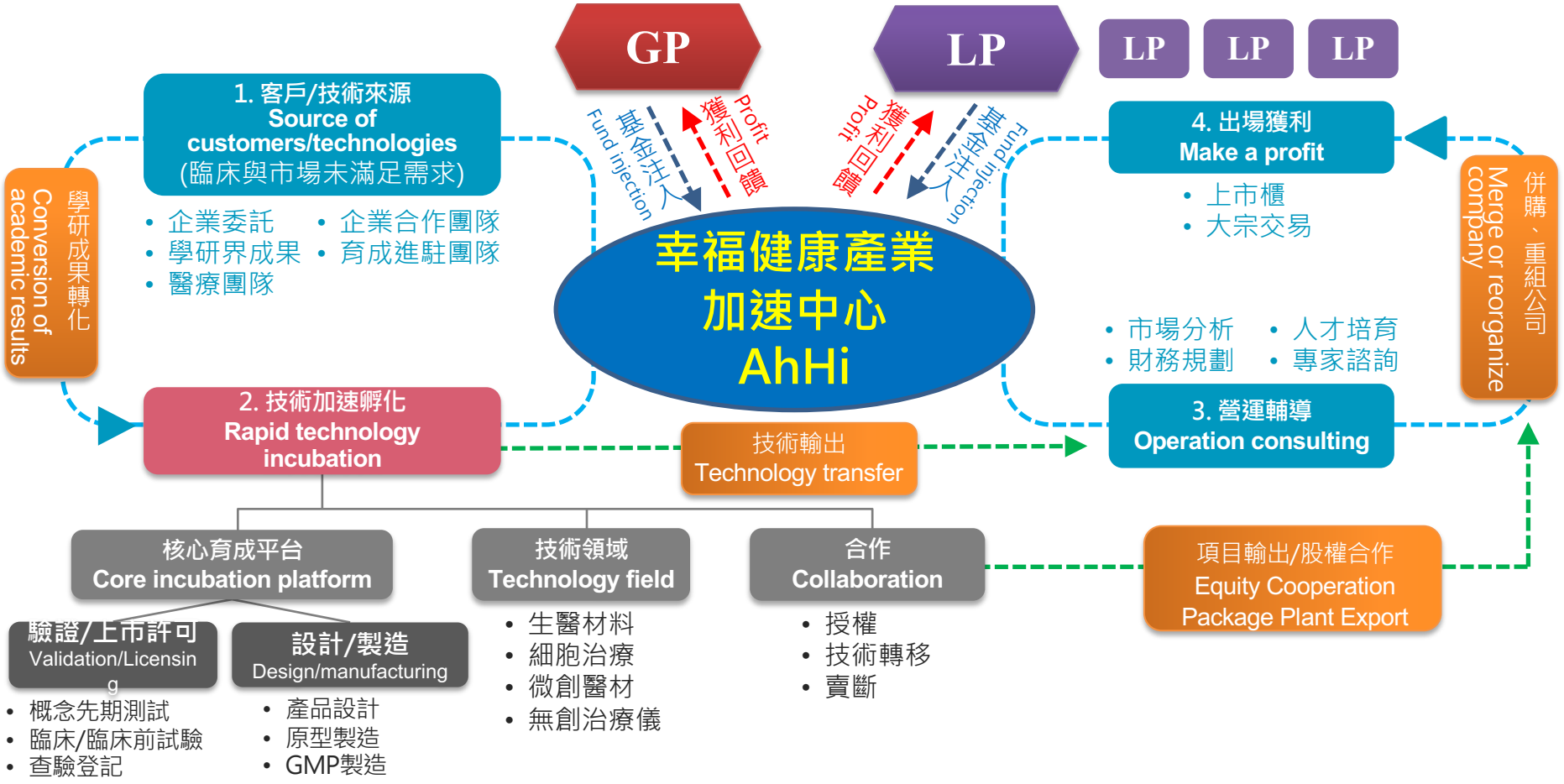
資金 Fund

國際企業
International enterprise
PE

大型金控
Big financial holdings company

上市櫃公司
Listed company

中心營運模式 Operating model

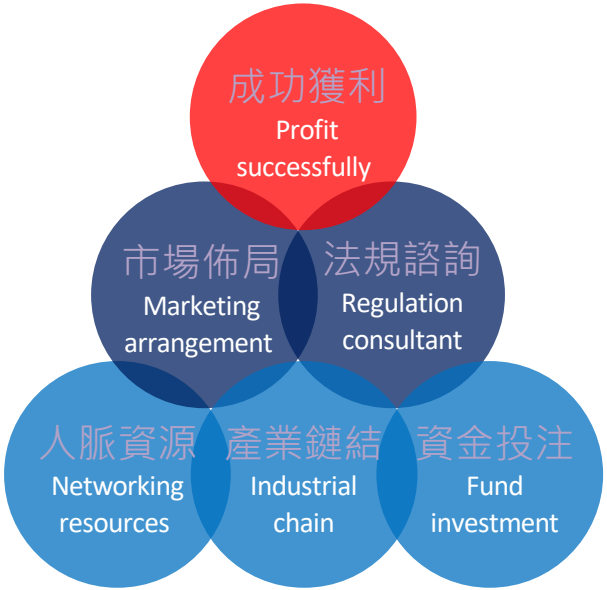


掌握健康趨勢・投資幸福未來

Master the trends. Invest happiness future.

資深大企業前輩帶領初創新創團隊

Our center has variety of resources. **Led by senior professions**, startups get abundant energy and have advantages to enter the market!



THANK YOU!

TAIWAN

YOUR PARTNER IN ASIA

Nangang Biomedical Cluster

Hsinchu Science Park

Central Taiwan Science Park

INDUSTRY CLUSTERS & BIOMEDICAL CORRIDOR

Taiwan is famous for its industry clusters. The WEF ranked Taiwan #2 in the world in cluster development in 2016.

Many specialized biotech clusters have been established across the island and can be easily accessed by Taiwan's ultra modern High Speed Rail (HSR) system. In less than two hours, the HSR effectively connects the Nangang biomedical cluster in the north to Kaohsiung in the south, and makes the island of Taiwan itself one large, unified biomedical corridor.